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ABSTRACT

The Chicago Mastery Learning Reading Program (CMLRP) discussed in this report is a method of instruction based on the mastery learning model developed by University of Chicago professor Benjamin Bloom. The report describes the procedures and results of an evaluation of the program's effects on reading achievement, information related to the teaching of reading and the program's implementation, and the perceptions of teachers and instruction assistants about the program. Following a summary of the evaluation project, the report is divided into the following sections: a description of the CMLRP, the evaluation procedures, and the results in each of the three areas mentioned. Appendixes include comments on the program by teachers and assistants and a list of CMLRP and non-CMLRP schools with programs that might affect reading achievement at each school. (HTH)

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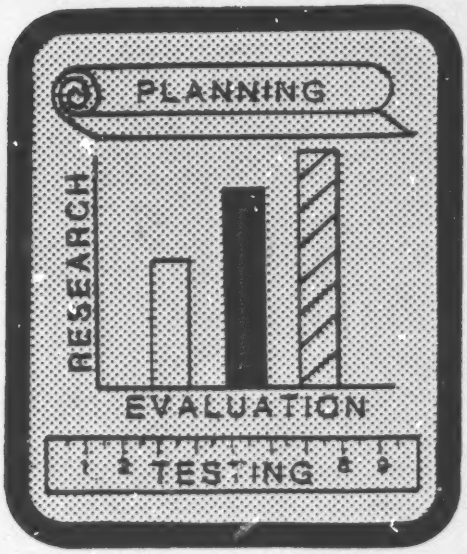
EVALUATION OF THE CHICAGO MASTERY LEARNING READING PROGRAM

EVALUATION OFFICE

SCHOOL DISTRICT OF
KANSAS CITY, MISSOURI

JULY, 1984



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EVALUATION OF THE CHICAGO MASTERY LEARNING READING PROGRAM

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June 1984

The School District of Kansas City, Missouri
Department of Planning, Research, Evaluation and Testing

Evaluation Office

ABSTRACT
Evaluation of the Chicago Mastery Learning Reading Program

The evaluation study examined the Chicago Mastery Learning Reading Program's (CMLRP) effect on reading achievement, process information related to the teaching of reading and the program's implementation, and perceptions about the program from teachers and instruction assistants. The achievement results indicate that (1) the reading achievement of students in CMLRP schools was similar to the reading achievement of students in comparison schools and (2) the reading achievement of students in special groups at CMLRP schools was similar to the reading achievement of students in special groups at comparison schools. The special groups examined were students who scored in the first quartile on the previous year's ITBS reading test, students in gifted/talented classrooms, students in regular classrooms, and students broken down into groups by year of CMLRP implementation. The perceptions results showed that the teachers and instructional assistants liked the CMLRP and thought that the program provided an effective way to teach reading but commented that the publisher needed to have the program edited to improve its technical design and to correct errors. The use of CMLRP materials as a supplement to a basal reader does not produce reading achievement that is different from the reading achievement in schools using only the basal reader; however, the program's main value may not be its specific program materials but rather exposing teachers to the techniques of mastery learning. CMLRP may have acted as the tool to help teachers learn to use mastery learning techniques. Achievement at elementary schools was higher this year than last year, and a more general knowledge of mastery learning techniques among teachers at all of the schools may have helped improve reading achievement.

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EXECUTIVE SUMMARY

This evaluation examined the Chicago Mastery Learning Reading Program's effect on reading achievement, process information related to the teaching of reading and the program's implementation, and the perceptions of teachers and instruction assistants about the program.

Analyses of the reading scores showed that the reading achievement of students in CMLR schools was similar to the reading achievement of students in comparison schools. The reading achievement of students in special groups was also analyzed for differences between CMLR schools and comparison schools. The special groups were students who scored in the first quartile on last spring's ITBS reading test, students in gifted/talented classrooms, students in regular classrooms, and students broken down into groups by year of CMLR implementation at their school. The analyses for each of these special groups showed that the reading achievement of students in these groups was similar to the reading achievement of students in the corresponding groups at comparison schools.

The process information examined as part of this evaluation showed that students in grades one and two at CMLR schools were spending about the same amount of time on reading as the students in comparison schools. However, students in grades three through six at CMLR schools were spending more time on reading than students in corresponding grades at comparison schools. These reading time differences between the two groups of schools were particularly striking for grades five and six. Eighty-one percent of the CMLR schools had a special CMLR reading time set aside for the entire school. The special reading time arrangement for the entire school made it possible to use CMLR's walking reading component to its fullest. Many of the instructional assistants at CMLR schools had difficulty getting sufficient CMLR and Houghton Mifflin materials

to teachers at their schools. They were able to juggle the reading supplies at their schools and with other schools so that 86 percent of the teachers indicated that they had enough CMLR materials for their classrooms. Even so, this juggling act was a great frustration for instructional assistants. Some instructional assistants commented that planning for and ordering instructional materials is a difficult task and they would like some inservice training to make the process more efficient.

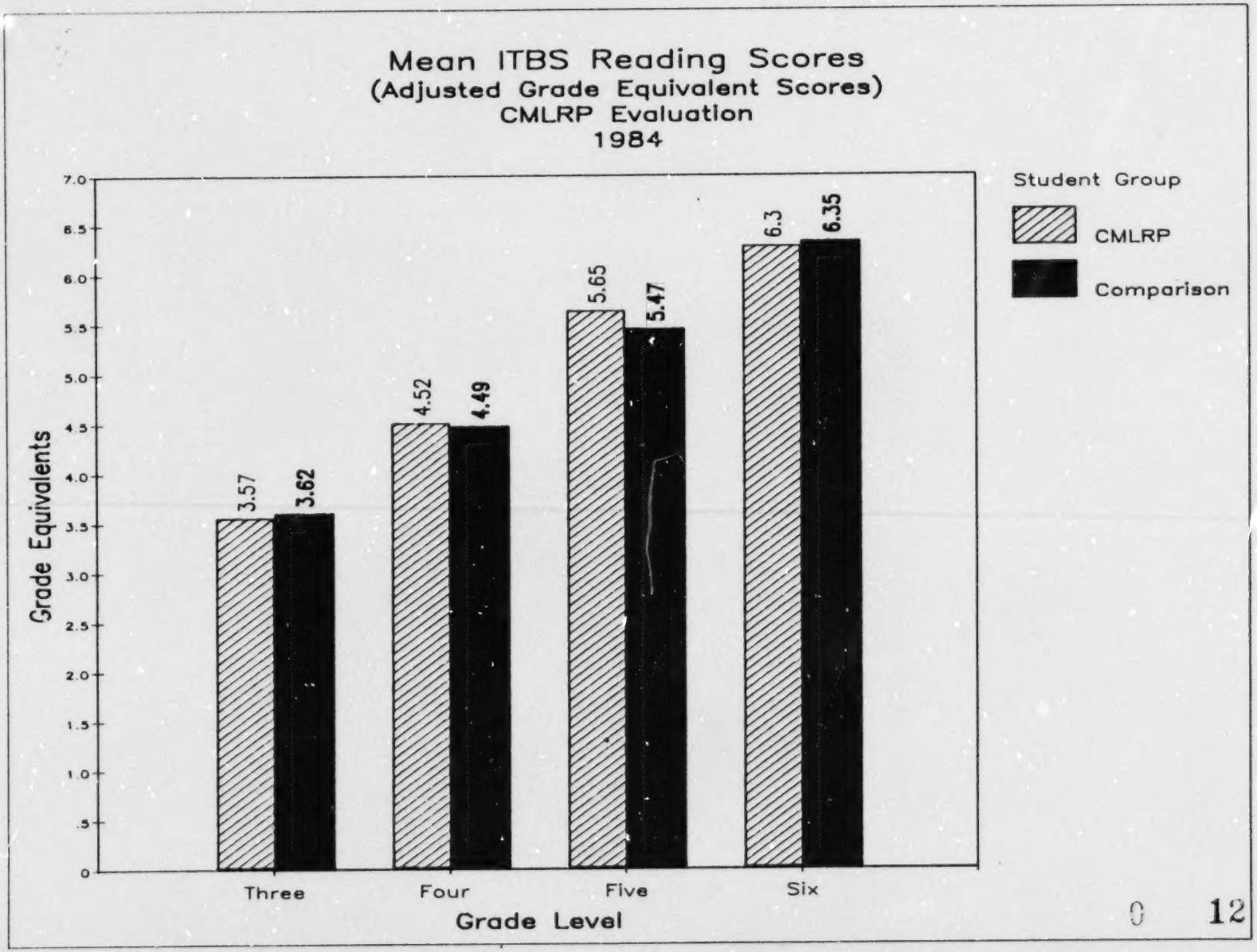
As might be expected, most of the CMLR staff development activities were for schools which began implementing the CMLR Program this year. The staff development activities at schools in their second or third year of implementation focused on new teachers at these schools. Instructional assistants and principals provided continual coaching and informal discussions with teachers throughout the year at most schools. The most frequent formal staff development activity was the demonstration of CMLR lessons provided by instructional assistants in classrooms. Schools in their second and third year of implementation sometimes used team teaching with experienced CMLR teachers teaming with teachers new to the program. The instructional assistants provided other inservice training on the program primarily during grade level meetings at the school. The Learning Exchange also demonstrated CMLR lessons at schools and provided inservice workshops for teachers.

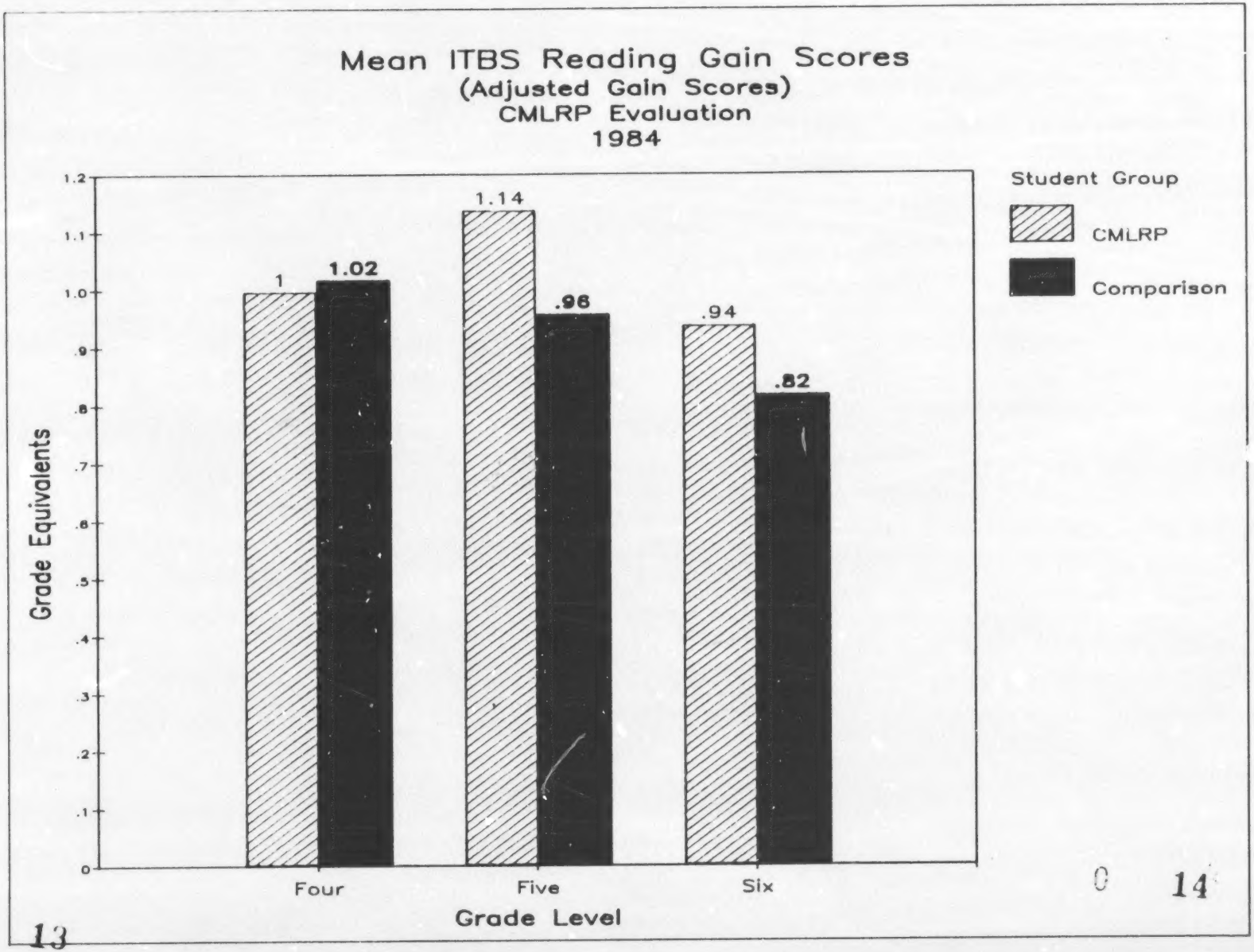
Teacher responses to a CMLR questionnaire showed that three-fourths of the teachers liked the CMLR Program and thought it should be continued. Although teachers thought the program provided an effective way to teach reading, both teachers and instructional assistants commented that the publisher needed to have the program edited to improve its technical design and to correct errors. Sixty-two percent of the teachers thought they had had adequate inservice training on using the program, and 44 percent thought they could

use more inservice training on special aspects of the program. Teachers at schools in their first year of implementation were the least satisfied with the adequacy of their inservice training for the CMLR Program.

There were many special programs being implemented in various elementary schools this past year. It was very difficult to isolate the effects of the CMLR Program from the effects that might have been produced by these other programs. It appears that the use of CMLR materials as a supplement does not produce reading achievement that is different from the reading achievement in those schools that do not use it as a supplement. It could be that mastery learning is a key to better reading achievement rather than a specific program. If this hypothesis is true, the program's main value may not be its specific program materials but rather exposing teachers to the techniques of mastery learning. The CMLR Program may have acted as the tool to help teachers learn to use mastery learning techniques. This hypothesis is partially supported by the finding that teachers liked the program's techniques for teaching reading but were critical of the CMLR books and thought they needed editing. In addition, some of the people who actively supported the CMLR Program last year by serving as CMLR resource teachers or on CMLR's steering committee were placed in comparison schools as instructional assistants or as principals this year. With the exception of a very few classrooms which were eliminated from the analyses of reading achievement, these schools did not use CMLR materials. However, these principals and instructional assistants may have been encouraging the teachers in their schools to use the techniques of mastery learning that they knew so well as CMLR resource teachers or as teachers at CMLR schools last year. Achievement at elementary schools was higher this year than last year, and a more general knowledge of mastery learning techniques among teachers at all of the schools may have helped improve reading achievement.

In addition to the suggestions for editing and updating the CMLR Program which were directed to the program's publisher, teachers also had suggestions for the program's implementation in the Kansas City School District. While teachers found the program a helpful supplement to the teaching of reading, they expressed concern that the time required for the full implementation of the Houghton Mifflin Reading Program and the CMLR Program may be taking time from the teaching of other subject areas. Teachers seemed to feel that the program worked well for students below grade level in reading, but students above grade level and students in gifted/talented classrooms found the program boring and repetitious. School district personnel responsible for this program may wish to study the comments by teachers and instructional assistants found in Appendix A when planning for reading.


Mean ITBS Reading Scores
(Adjusted Grade Equivalent Scores)
CMLRP Evaluation
1984
Grade Equivalents
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
.5
0
3.57
3.62
4.52
4.49
5.65
5.47
6.3
6.35
Three
Four
Five
Six
Grade Level
Student Group
CMLRP
Comparison


Mean ITBS Reading Gain Scores
(Adjusted Gain Scores)
CMLRP Evaluation
1984
Grade Equivalents
1.2
1.1
1.0
.9
.8
.7
.6
.5
.4
.3
.2
.1
0
1
1.02
1.14
.98
.94
.82
Four
Five
Six
Grade Level
Student Group
CMLRP
Comparison

EVALUATION OF THE CHICAGO MASTERY
LEARNING READING PROGRAM
1983-84

Program Description

The Chicago Mastery Learning Reading Program (CMLR) is a method of instruction based on the mastery learning model developed by University of Chicago professor Benjamin Bloom. Chicago Mastery Learning Reading instruction begins with whole group instruction to all students in the class. After this whole group instruction, students take a test over the material. Students who pass the test are provided with "enrichment activities", and those who fail are taught the same concept using an alternative strategy and then retested over the instructional material. Students who consistently fail the retests need additional attention. Some of the Kansas City schools implementing the CMLR Program use "walking reading" for these students. The students remain with their regular classroom teacher for most subjects but go to another teacher for CMLR reading instruction appropriate to their reading level.

This past year twenty seven elementary schools implemented the CMLR Program in the Kansas City School District. It was the third year of implementation for seven schools, the second year of implementation for five schools, and the first year of implementation for the remaining fifteen schools. Appendix C contains a list of the schools by year of implementation. The CMLR Program was being used in these schools as a supplement to the Houghton Mifflin basal reader.

Evaluation Procedures

This evaluation examined CMLR Program's effect on reading achievement, process information related to the program's implementation and to the teaching of reading, and perceptions about the program.

About half of the elementary schools implemented the CMLR Program this year, so the remaining schools were selected as comparison schools for the examination of reading achievement. However, there were other special programs in various schools this past year and many of these programs could have affected reading achievement this spring along with any effect produced by the CMLR Program. Isolating CMLR Program's effect on reading from the reading achievement effects of these other programs became an evaluator's nightmare. Two lists were made of the special programs which might affect reading achievement: one list for the CMLR schools and one list for the comparison schools. These lists provided a clearer picture of the configuration of special programs in the various elementary schools so that evaluation decisions could be made about how to control or isolate these special program effects on reading achievement from CMLR effects on reading. These two lists can be found in Appendix C.

Chapter 1 and the corresponding PAR/MAR classrooms were in many schools and were fairly evenly distributed at each grade level between the CMLR schools and the comparison schools. The assumption was made that their effects on reading achievement in CMLR schools and comparison schools would cancel each other out in the data analyses of reading scores.

Computer managed instruction and computer assisted instruction in schools which had fully implemented either of these programs for the entire year were in few schools and were not evenly distributed between the CMLR schools and the comparison schools. The same condition existed for schools designated as effective schools. All of these schools were eliminated from the reading achievement data analyses at each grade level.

Schools with gifted/talented classrooms remained in the examination of achievement data, but separate analyses were conducted using only gifted/talented classrooms and only regular classrooms so that any differential effects for these two groups could be determined.

Instructional assistants were in every CMLR school at the start of the school year, but they were not placed in the comparison schools until the beginning of the second semester. Since differential placement of instructional assistants entirely favored the CMLR schools, the evaluation of the CMLR Program includes any achievement effects due to this slightly earlier placement of instructional assistants in CMLR schools.

In a final effort to isolate the effects of the CMLR Program on reading achievement, instructional assistants, as part of their personal interview for this evaluation, were asked to identify any classrooms in their schools where CMLR had not been implemented as designed so these classrooms could be removed from the data analyses. Principals at comparison schools were asked to identify any classrooms where CMLR materials were being used so these classrooms or the entire school, if necessary, could be eliminated from the data analyses. Very few classrooms were identified from these interviews as conceivably contaminating the results. In addition, the use of CMLR materials in the few identified comparison classrooms was so minimal that this irregularity probably had no effect on reading achievement. The same was true for the few identified CMLR classrooms which had not used the CMLR Program fully. Even so, these few classrooms were also eliminated from the data analyses. Schools that remained in the reading achievement analyses after this process of isolating effects from other programs included 18 CMLR schools and 18 comparison schools.

In a further effort to make the comparison between the CMLR schools and the schools using only the Houghton Mifflin basal reader as fair as possible, students' reading scores from the Iowa Tests of Basic Skills (ITBS) were statistically adjusted to make the two groups as similar as possible before the ITBS reading achievement data were analyzed. Two scores were used to make this adjustment: students' verbal scores on the Cognitive Abilities Tests (CAT) and

minutes per week spent on reading in each student's classroom. This process is called analysis of covariance.

The achievement data were analyzed by comparing each grade in the CMLR schools with the corresponding grade in the comparison schools to determine if the CMLR Program used in conjunction with the Houghton Mifflin basal reader was more effective than teaching reading using only the Houghton Mifflin basal reader.

Process information related to the implementation of the CMLR Program and the teaching of reading in general was gathered from interviews with instructional assistants. Every instructional assistant was interviewed at his/her school site with some principals sitting in on these interviews. Instructional assistants and principals at comparison schools were contacted by phone to obtain information about the teaching of reading and any use of CMLR materials at their schools.

Perception data were collected from teachers and instructional assistants at CMLR schools. Questionnaires were administered to teachers at CMLR schools, and perception data from instructional assistants were collected during their interviews.

Results

The evaluation results are presented in three sections. The first section contains results related to reading achievement, the second section contains process information from interviews with instructional assistants, and the final section contains perception results from teachers and instructional assistants.

Effect on Achievement

Statistically significant differences between CMLR schools and comparison schools were determined by using a .05 significance level which gives a 95 percent probability that any differences between the two groups were real rather than chance differences.

Table 1 presents summary data on spring ITBS reading grade equivalent scores for students attending CMLR schools and for students attending comparison schools. The table contains two types of mean scores. The first mean score for each grade is unadjusted and represents each group's reading grade equivalent mean score determined from their actual spring (posttest) scores. The adjusted mean score for each grade represents a scientific estimate as to how the two groups of students would have performed on the posttest assuming that they had identical pretest means. Analysis of covariance summaries using these adjusted scores can be found in Appendix D.

The results from these analyses show that any reading score differences between the students attending CMLR schools and students attending comparison schools were due to random testing errors and cannot be attributed to effects of the program. In other words, reading achievement of students in comparison schools was similar to the reading achievement of students at CMLR schools.

Table 2 presents the reading achievement data another way using students' gain scores. Analysis of covariance summaries for these data can also be found in Appendix D. The reading gain scores of students attending comparison schools were similar to the reading gain scores of students attending CMLR schools.

Special groups were pulled from these data and analyzed to determine whether the program had differential effects on the students in these special groups. One group included those students who scored in the first quartile on last spring's ITBS reading test. The second group included students in gifted/

TABLE 1

Summary Data on ITBS Reading Grade Equivalent Scores for Students Attending Chicago Mastery Learning Reading Schools and for Students Attending Comparison Schools

Grade Type of Mean	CMLR Students	Comparison Students	National Norm for Spring Testing
Grade 3			
Unadjusted Mean Score	3.52	3.69	3.87
Adjusted Mean Score [1]	3.57	3.62	
Grade 4			
Unadjusted Mean Score	4.61	4.38	4.87
Adjusted Mean Score [1]	4.52	4.49	
Grade 5			
Unadjusted Mean Score	5.46	5.62	5.86
Adjusted Mean Score [1]	5.65	5.47	
Grade 6			
Unadjusted Mean Score	6.43	6.25	6.80
Adjusted Mean Score [1]	6.30	6.35	

[1] These adjusted posttest means represent a scientific estimate as to how the two groups of students would have performed on the posttest assuming that they had identical pretest means. The Analysis of Covariance summaries using these adjusted scores can be found in Appendix D. These analyses show that any differences between the students at CMLR schools and students at comparison schools were due to random errors.

TABLE 2

Summary Data on ITBS Reading Gain Scores for Students Attending Chicago Mastery Learning Reading Schools and for Students Attending Comparison Schools

Grade Type of Mean	CMLR Students	Comparison Students
Grade 4		
Unadjusted Mean Gain	1.00	1.02
Adjusted Mean Gain [1]	1.00	1.02
Grade 5		
Unadjusted Mean Gain	1.04	1.04
Adjusted Mean Gain [1]	1.14	0.96
Grade 6		
Unadjusted Mean Gain	0.89	0.86
Adjusted Mean Gain [1]	0.94	0.82

[1] The adjusted mean gains represent a scientific estimate as to how the two groups of students would have gained for the year assuming that they had identical pretest means. The Analysis of Covariance summaries using these adjusted scores can be found in Appendix D. These analyses show that any differences between the students at CMLR schools and students at comparison schools were due to random errors.

talented classrooms. The third group included all students in regular classrooms. This third group included the first quartile students but not the gifted/talented students. None of the analyses using data from these special groups produced results that were different from the results presented in Tables 1 and 2. The reading scores of students in these special groups attending comparison schools were similar to the reading scores of these corresponding groups of students in CMLR schools. The reading achievement data were also analyzed with the data broken down by year of implementation. Reading achievement results in schools which were in their second and third year of CMLR Program implementation were not statistically different from reading achievement results for schools in their first year of CMLR Program implementation.

Process Information

Process information is information related to the implementation of the CMLR Program and the teaching of reading in general. This information was gathered from interviews with instructional assistants at both CMLR schools and at comparison schools.

Teachers at CMLR schools had been instructed to teach reading using both the Houghton Mifflin basal reader and the CMLR Program as designed by the publisher. It was speculated that more time might be spent on the teaching of reading in CMLR schools in order to cover the materials in both of these programs. If the speculation were true, then higher reading achievement scores in CMLR schools might be attributed to more reading instruction time in those schools rather than to program effects. Each instructional assistant was asked how much time was spent on the formal teaching of reading each week at each grade level in his/her school. These time data were used as one covariate in the analyses of the reading achievement data. In other words, time spent on reading each week was used to adjust students' scores so that any differences

between the time spent on reading in CMLR schools and the time spent on reading in comparison schools would be adjusted out before the reading scores were analyzed. Table 3 shows the average number of minutes per week spent on reading at each grade level in CMLR schools and in comparison schools. For grades one

TABLE 3

Average Number of Minutes Per Week Spent on Teaching Reading in CMLR Schools and Comparison Schools

Grade Level	CMLR Schools	Comparison Schools
Grade 1	642	657
Grade 2	642	643
Grade 3	643	604
Grade 4	525	474
Grade 5	542	395
Grade 6	542	395

and two, CMLR schools and comparison schools spent a similar amount of time per week on reading. However, for grades three through six, CMLR schools spent more time on reading than did the comparison schools and the differences were striking for grades five and six.

Other process information gathered from the instructional assistants is summarized in Tables 4 and 5. A greater proportion of the CMLR schools (67%) had a special time set aside each day for the teaching of reading using Houghton Mifflin materials than did the comparison schools (52%). In addition, 81 percent of the CMLR schools scheduled a special time each day for the entire school to work on the CMLR Program. It should be pointed out that a special reading time

TABLE 4

Percentage of Schools with a Special School Reading Time and with Sufficient Instructional Reading Materials

Type of Information	CMLR Schools	Comparison Schools
Special School Time for Reading		
- Houghton Mifflin Program	67%	52%
- CMLR Program	81%	---
Sufficient Instructional Reading Materials:		
- Houghton Mifflin Materials	30%	70%
- CMLR Materials	63%	---

TABLE 5

Percentage of CMLR Schools Conducting Various Staff Development Activities on the CMLR Program

Type of Activity	Approximate Number of Staff Development Activities				
	1-5 Activities	6-10 Activities	11-15 Activities	16-20 Activities	Over 21 Activities
CMLR Demonstration Lessons:					
- Provided by Instructional Assistants	26%	15%	7%	15%	11%
- Provided by Learning Exchange	33%	4%			
Inservice Training Sessions:					
- Provided by Instructional Assistants	37%	11%			
- Provided by Learning Exchange	74%				
- Other Inservice Training	11%				

for the entire school was important when teaching reading using the CMLR Program because the program has a "walking reading" component. "Walking reading" is used when students need to "walk" to another classroom to join a group closer to their reading level for CMLR instruction. The special reading time arrangement for the CMLR Program in which the entire school was reading at the same time made it possible to use CMLR's walking reading component fully.

Obtaining enough instructional materials of all kinds is, understandably, a temporary problem for all schools in the fall because of shifting enrollments. For some schools, however, the problem persisted throughout the year. More instructional assistants at comparison schools indicated that they had sufficient instructional reading materials than did the instructional assistants at CMLR schools. It should be pointed out, however, that instructional assistants at the comparison schools were not in their schools as instructional assistants until the second semester. They may not have been aware of shortages of instructional materials that had occurred before they arrived. While interviewing instructional assistants on this topic, several of them suggested that some inservice training on planning for and ordering instructional materials would be very helpful to them.

It was difficult for the instructional assistants to recall all of the staff development activities for the CMLR Program. They indicated that both principals and instructional assistants provided coaching and informal discussions with teachers on the program throughout the year. The most frequent formal staff development activity was the demonstration of CMLR lessons by instructional assistants in classrooms. The instructional assistants provided other inservice training on the program primarily during grade level meetings at the school. The Learning Exchange also demonstrated CMLR lessons at schools and provided inservice workshops for teachers. "Other inservice activities" for the CMLR

Program were special inservice events, e.g., a school retreat for the teaching staff, which included some inservice on the CMLR Program. Table 5 summarizes information on the more formal staff development activities related to the CMLR Program.

As might be expected, schools in their first year of CMLR implementation had the most CMLR inservice training activities. Inservice activities at schools in their second and third year of CMLR implementation concentrated most of their activities on teachers new to the program. They sometimes used team teaching with experienced CMLR teachers teaming with teachers new to the program.

Perceptions of the CMLR Program

Teacher perceptions of the CMLR Program are presented in Table 6. This same table with responses broken down by year of implementation can be found in Appendix B. About three-fourths of the teachers liked the program, thought their students liked the program, and thought the program should be continued in their school. There was some concern that the program took time away from the teaching of other subject areas with 31 percent of the teachers indicating that it did. Teachers were slightly less confident about the program's effect on reading achievement with 68 percent indicating that the program helped them improve their students' reading achievement, 59 percent indicating that the program helped to motivate their students in reading, and 54 percent indicating that the program helped to provide for their students' individual reading needs. About three-fourths of the teachers thought the various components of the program were effectively designed for the teaching of reading. However, both teachers and instructional assistants had suggestions for CMLR's publisher on ways to improve the program. Both groups thought the publisher needed to edit the program's materials, especially for mistakes, e.g., poor sentence structure. Teachers also commented that the program required too much writing on the board

TABLE 6

Teacher Perceptions of Chicago Mastery Learning Reading Program [1]

Component Area Questionnaire Items	Agree	Undecided	Disagree
General Satisfaction			
I like the CMLR Program.	75%	15%	10%
My students like the CMLR Program.	77%	11%	13%
One problem with the CMLR Program is that it takes time away from other subject areas. [2]	31%	11%	58%
The CMLR Program should be continued at this school.	74%	17%	9%
Effect on Reading Achievement			
The CMLR Program has helped me improve my students' reading achievement.	68%	24%	7%
The CMLR Program helps to motivate my students in reading.	59%	26%	15%
The CMLR Program has helped me provide for my students' individual reading needs.	54%	25%	21%
Effectiveness of Instructional Design			
CMLR Program's whole group instruction is an effective way to teach reading.	75%	15%	10%
CMLR Program's walking reading is an effective way to provide for special reading needs.	78%	16%	6%
CMLR Program's additional activities provide effective skill practice for nonmastery students.	71%	14%	16%
CMLR Program's enrichment activities provide effective enrichment for mastery students.	70%	15%	14%

(Continued on page 20)

TABLE 6 (Continued)

Component Area Questionnaire Items	Agree	Undecided	Disagree
Quality and Quantity of Published Materials			
The CMLR Program has well designed teacher's manuals that are easy to use.	76%	11%	14%
The CMLR Program has well designed individual student activities that students find interesting.	72%	17%	11%
I have enough CMLR Program materials for my class.	86%	3%	10%
Quality of Inservice Training			
The quality of the inservice training provided by the Learning Exchange for the CMLR Program has been good.	43%	36%	21%
The quality of the inservice activities provided by the Instructional Assistant for the CMLR Program has been good.	52%	30%	18%
I have had adequate inservice training for implementing the CMLR Program.	62%	16%	22%
I could use more inservice training on special aspects of the CMLR Program.	44%	23%	33%

[1] The number of teachers responding to this questionnaire was 356.

[2] Disagreement with this statement was considered a positive response for the component area.

for teachers. Some teachers suggested that the publisher should provide transparency masters for overhead projectors to avoid so much board writing.

Although 37 percent of the instructional assistants said they had trouble getting enough CMLR materials for their schools, they must have been efficient in locating and distributing CMLR supplies to teachers in their buildings because 86 percent of the teachers indicated that they had enough CMLR Program materials for their classrooms.

Teachers were the least positive about the inservice training for the CMLR Program with 52 percent of the teachers indicating that the inservice training provided by the instructional assistants was good and 43 percent indicating that the inservice training provided by the Learning Exchange was good. Sixty-two percent of the teachers thought they had had adequate inservice training on using the program, but 44 percent thought they could use more inservice training on special aspects of the CMLR Program. Teachers at schools in their first year of implementation were the least satisfied with the adequacy of their inservice training for the CMLR Program.

Teachers and instructional assistants had many comments about the CMLR Program. These comments were arranged into three types: suggestions for the publisher of the CMLR Program, suggestions to the school district concerning its implementation in the Kansas City School District, and general comments about the program. A complete list of these comments can be found in Appendix A. Suggestions for CMLR's publisher have already been discussed. The major concern teachers directed to the school district was that CMLR was taking too much time from the teaching of other subject areas. Teachers also suggested that the program should not be used for students above grade level in reading or for students in gifted/talented classrooms because these students found the program repetitious and boring. The general comments tended to be from teachers who liked the program as it is. Instructional assistants commented that they would like some training on ordering instructional materials.

APPENDIX A

COMMENTS ON THE CMLR PROGRAM BY INSTRUCTIONAL ASSISTANTS AND TEACHERS

Suggestions for the publisher of the CMLR Program ..... Page 23

Suggestions for Implementation of the CMLR Program in the Kansas City School District ..... Page 26

General Comments About the CMLR Program ..... Page 30

SUGGESTIONS FOR THE PUBLISHER OF THE CMLR PROGRAM

Suggestions from Instructional Assistants

- I really like this program. However, the publishers need to edit their books. There are some terrible errors in the books, such as poor sentence structure. The graphics are bad.

- The CMLR materials need editing. There are problems with sentence structure, typos, definition of words, usage, etc. Teachers who have used the program should serve on a committee to upgrade the materials.

- The publishers need to revise the program. It is hard to find things in the teachers' manual.

- The publisher should reorganize books so that cut and paste activities are together and away from the worksheet pages. Pages end up sticking together.

- The materials are good although the books are a little disorganized. For example, coding is difficult to figure out.

- CMLR is an excellent program. The teachers' manual should be changed so that the answers which are now in the back of the manual would be on the student pages in the teachers' manual.

Suggestions from Teachers

- The material contains mistakes that were pointed out two years ago.

- The CMLRP materials need to be edited more efficiently.

- Too much writing on the board for the teachers. Changes: Overhead projector masters for each grade level to eliminate writing on board for the teacher.

- I do not always have a free board for all the teacher writing that is required.

- There should be overhead inlays made so the teacher does not have to write so much on the board.

- There are not enough additional activities for those students who work below grade level. Some Teacher Activities require too much to write on the chalkboard, i.e., in the unit on Topic Sentences, it was suggested that an entire story be written on the chalkboard. This was quite a feat!! (There is too much time involved!!!)

- Would like some color in the books. Not enough enrichment and additional activities.

- Some of the additional activities and enrichment activities are rather difficult for the students. As a teacher, I didn't think that I would enjoy Chicago Mastery, but such has not been the case. I am enjoying it very much and also teaching it to the children. I feel in time progress will be shown in the children's reading progress and comprehension.

SUGGESTIONS FOR THE PUBLISHER OF THE CMLR PROGRAM
(Continued)

- The "independent" student enrichment activities can't be done independently.

- Skill and word attack books superior to comprehension book. In fact, entire program, I feel, is superior in word attack and basic skills but becomes wordy and abstruse in composition.

- I don't like the teachers' manual. I feel the parts in the front should be with the chapter they apply to. Especially the a-b-c's. I'd like to see the chapter sections more defined, too. Otherwise, my students have really enjoyed it.

- Have enjoyed teaching the program at this point. Would like to see the Teacher's Manual organized differently.

- The teachers' edition should have a different format.

- The printing of all the books needs clear print and better spacing. It's hard to tell the difference between where directions start and end. Directions run into the exercises. I lost a lot of time trying to locate the teacher's answer key. A better printing outlay will make this an excellent series.

- Three workbooks plus a test book is too much for first grade. All four books are red, which is very confusing for first graders. The books should have color-coded dots on them.

- The children complain that they have not been given adequate space in which to write their answers. I agree! The key is too far removed from the work pages. It could be printed in red, rather than several pages later.

- The sequence unit confused my kids. I think it should be rewritten. Also some of the things we do don't match the test.

- Paper is too thin -- it tears. At least seven letters are made differently in the "alphabet book" than on the Zaner-Bloser chart -- involves teacher-time to block out in black crayon or marker and make new samples; insufficient "tracing" practice before direction to "copy"; takes individual help on each person -- no one to "help" the others at the same time, or they copy incorrectly. Different style confuses children and parents. Page number system is too complex and should not be abbreviated. Then students who are successful don't have consecutive pages if they "skip" extra mark for slow ones, and vice-versa -- further confusing children and parents. Teachers should be provided an extra booklet with cut, color and paste pages completed as "samples" to show.

- The test sheets should follow each unit in the student's booklet, rather than separate test booklet.

- I wished CMLR had a reading series program which included a basal reader, and we wouldn't have to use Houghton Mifflin, an entirely different book and series.

SUGGESTIONS FOR THE PUBLISHER OF THE CMLR PROGRAM
(Continued)

- Some of the letters in the program are not formed in harmony with K. C. guidelines. For example:

KC	CMLR
W	W
M	M

I suggest that the practice sheets for the letters be printed on only one side of the paper so that we can discard the pages that do not harmonize with our writing manuals.

SUGGESTIONS FOR IMPLEMENTATION OF THE CMLR PROGRAM
IN THE KANSAS CITY SCHOOL DISTRICT

Suggestions from Instructional Assistants

- The instructional assistants need some training on ordering materials. I have spent a lot of time getting materials but the process could be better with some training. Students like to work on Chicago Mastery. Teachers were skeptical at first, but now they like to use it. There are so many programs in this school that they are bumping into each other. Each program is good but there are just so many to implement. (This comment came from an instructional assistant at an Effective School)

- It takes a lot of planning to get materials. It is a difficult job. The instructional assistants need some training to plan for the acquisition of materials. Budget problems caused some problems in getting materials. Weaker teachers like CMLR better because it is easier to use. It helps a weaker teacher teach by showing them a new method.

- Material shortage is the only problem with this program. Wish there were a faster way to get materials.

- I would like some help on ordering materials.

- CMLR is a valuable supplement to the reading program. There is a need for a workshop on CMLR at this school. I could do the workshop but I could use some outside support.

- Since Houghton Mifflin is being used for retention, teachers sometimes feel that the hours spent on Chicago Mastery could be better spent on Houghton Mifflin. The upper grades are getting bored. The first grade teachers like the program best. The upper grade teachers think the program is good for the slower students. The faster students in the upper grades have no place to walk and are therefore bored.

- This school needs some self-directed activities and materials for reading, not necessarily Chicago Mastery materials.

- Walking reading can't be utilized to its fullest because it can't be used in the PAR classroom. No students can walk to the PAR classroom and no students can walk out. This is an inefficient use of teacher resources.

Suggestions from Teachers

- I feel I have enough reading materials, kits, vocabulary lessons, extra reading that the CMLR does not add enough to warrant using it -- it steals time that otherwise could be used for more useful things!

- Takes too much time away from other subjects.

- This is a good program. However, I feel it takes too much time away from the other subject areas, especially the regular reading program and math.

SUGGESTIONS FOR IMPLEMENTATION OF THE CMLR
PROGRAM IN THE KANSAS CITY SCHOOL DISTRICT--(Continued)

- The CMLR program is nice, but having to teach the skills from Houghton Mifflin along with the CMLR skills is entirely too time consuming. I wish the district would decide as a whole what they plan to do and stop bogging teachers down with paper detail and let them actually get back to teaching!

- Houghton Mifflin is a more effective way of teaching reading in my opinion. CMLR takes time away from a more effective method of teaching reading.

- I don't think the CMLR Program is an efficient learning tool. It is easy to teach, but it doesn't improve student reading achievement. It also takes important time that should be spent on other subject areas.

- I do not believe that the CMLR Program helps with beginning reading. The activities are fun and easy for the students, but they are not prerequisites to reading. Our schedule is so full that two reading programs take away from other activities that should be a part of what is taught.

- Because the district insists that we must now teach all skills in Houghton Mifflin, it is too difficult to give Chicago Mastery all the attention it has been given in the past. If we are to do skills and stories in Houghton Mifflin, then we should work only with it and get all materials available for it.

- CMLR has helped supplement the Houghton Mifflin. It has prepared the children for skills to come later in Houghton Mifflin. I feel we need both series and workbooks, tests, etc., in Houghton Mifflin.

- Stop teaching Houghton Mifflin. Go with CMLR all the way!

- Hard to use it <u>and</u> stay up with H.M. goals.

- The CMLR Program is very effective for the regular classroom -- I taught the program to a regular 5th grade room, and the children loved it. We remained self-contained -- whole class reading on the same level -- the children reading below grade level in Houghton Mifflin were very proud to be on grade level in CMLR; with some individualized help, they achieved mastery. My experience with the G.T. program has not been as positive. The children find the program very boring and much prefer the H.M. series -- they do not enjoy the total room approach to reading -- much of the material, for them, is repetitious.

- The program is well paced for those readers who need remedial reading, but my students who are reading on grade level find the program boring. The grade level students finish some activities too quickly and are restless by the time I get around to check their books. Some of the children reading well below grade level need even more reinforcement than CMLR program provides.

- Most effective for children who are below grade level. Not necessary for children who have mastered the skills in the basic Houghton Mifflin Reading Series.

SUGGESTIONS FOR IMPLEMENTATION OF THE CMLR
PROGRAM IN THE KANSAS CITY SCHOOL DISTRICT--(Continued)

- Too much repetition for gifted students so they are bored.

- My children have lost interest in the reading program because it is so redundant. Chicago Mastery for the Gifted and Talented child is inconsistent with our program.

- Since the Chicago Mastery Reading Program provides materials for the whole language arts area, and since this is one period of uninterrupted class time, I would like the walking reading eliminated. The students reading below grade level could benefit by staying with their regular group.

- I have a Bilingual Class and find the format ineffective. I need the progression and overlapping of skills of a Houghton Mifflin type. The "Bilingual" student cannot absorb and master a skill in the isolated format of CMLRP.

- I would like to use the Chicago Mastery Program at the same time that I'm teaching the Houghton Mifflin Reading Program. The pupils could be working in the Chicago Mastery books on the same skills as in the Houghton Mifflin Program. This would reinforce the same skills using a different and very interesting approach to help master the skills while I'm working with the different groups.

- The Enrichment Activities are very appropriate and consistent with what the activities help teach. I would prefer to teach the lessons that I feel my students need, rather than follow the sequence on the chart.

- Due to the many pullouts and walking reading twice a day, I think CMLR should be on an alternating schedule with Houghton Mifflin. This would allow the students some time to apply the skills learned in reading in the content area.

- The CMLR program should, if used in a split room, have the children sent to the grade for their Chicago Mastery Learning Level. To have a grade working at the level below the grade that they are in is not challenging enough! Of course, only one level could be covered within a room, therefore there should have been "walking" for the upper grade of split room! (or the lower group as numbers in other rooms indicate.)

- Would like to see our school initiate a plan whereby CMLR would be used the first semester (in regular classes) and the basal series the second semester.

- Too many records to keep on each pupil.

- More test booklets needed for each student.

- Strengths: (1) Enhances the basal reading series, (2) Whole-Group teaching strategies, (3) Immediate feedback for the teacher. Weaknesses: (1) It detains the pace of the Houghton Mifflin Reading Series, (2) It is being used by some classroom teachers for the total reading program, (3) Too much checking, scoring, and record keeping for the teacher, (4) A more ___?___ report card for Chicago Mastery to inform whether a child has mastered or not mastered a skill, (5) Doesn't need to be used daily.

SUGGESTIONS FOR IMPLEMENTATION OF THE CMLR
PROGRAM IN THE KANSAS CITY SCHOOL DISTRICT--(Continued)

- It was a good idea but not applicable to our situation if you have to take it unit by unit in sequence.

- Continue it!

- My students look forward to the Chicago Mastery Reading Books. They enjoy the activities in the books because its format is different from the regular reading books. I do believe Houghton Mifflin should be their basic reader with Chicago Mastery as a supplement. I also enjoy using this book (CMLR) because it has given me some additional ideas to improve their reading skills.

GENERAL COMMENTS ABOUT THE CMLR PROGRAM

Suggestions from Instructional Assistants

- Program is moving along nicely.

- Some teachers don't like the way some materials are presented.

- The program is like an insurance policy because it insures that skills are being taught; it forces the teaching of skills. Teachers and students like the whole group instruction.

Suggestions from Teachers

- I think the Chicago Mastery program is an excellent program. I like the progression from simple to more complex. My students enjoy Chicago Mastery because: (1) They can hear the material, (2) The stories are interesting, (3) They get immediate feedback and understanding. The only thing a few of my children dislike is not having a separate workbook. They have been conditioned to use workbooks and only time will remove this "security blanket."

- My children have responded well to the program.

- We thoroughly enjoy the whole-group instructional approach. Usually all hands are eagerly flying with answers.

- A great program!

- I think the CMLR Program is an excellent program. I feel the skills the program contains and the way they are taught will help the student to excel in all subject areas.

- I really like the program. It really has helped the children in my class (the MAR Room) because most of the boys and girls in my room are not slow; their problems are mostly skills they have missed over the years, not only in Reading, but Math and Language as well.

- I like the CMLR Program because it enables me to teach the whole class specific skills. When you have everyone's attention at the same time, it promotes more learning time, cuts down on discipline problems.

- I like the program and think it has been helpful to the children.

- The CMLR Program has been a big help to my students. The students enjoy working in the books and the activities are good learning skills with fun. This helps keep the students from being bored.

- It is the most positive supplemental program I've used. I truly appreciate it.

- Some of my children will benefit from CMLR while others will not. My levels of reading are so varied! It is also good reinforcement for my present reading series.

- CMLR is easy for most of my students. It does provide a chance for students to succeed because the majority of them can master it easily. (Kgn)

GENERAL COMMENTS ABOUT THE CMLR PROGRAM
(Continued)

- The CMLR Program is extending far beyond the three R's. My entire class seems to be progressing better in all areas; therefore, I am pleased.

- I really like the way additional activities and enrichment activities are built in to fill in the gaps when some children need extra time and help.

- I can very much understand why it is called a mastery program. I used the Green Level which for the most part was very simple for most of my students and therefore mastery was in their reach for a change.

- Teaching these skills to the whole class at one time saves me the time of introducing these skills when we reach them in our readers, spellers and English. Each subject reinforces the other.

- Program perhaps effective because teachers helped to design it (the ones where the action really is, and who should be more knowledgeable than some others about what should be taught, and how to teach it.)

- I have been doing the work in Chicago Mastery for 27 years.

- As a kindergarten teacher, I have been doing these things all along. The CMLR has given me more activities to reinforce our reading program.

- I think the program is weak in remedial work for the "slow" student. It's paced a little too fast for many who haven't had prior exposure. This is a more structured approach to the teaching of phonics and comprehension. It could be more organized in coordination with the regular reading series as to where phonics, etc., are introduced.

APPENDIX B

TEACHER PERCEPTIONS OF THE CMLR PROGRAM BROKEN DOWN
BY YEAR OF IMPLEMENTATION

TABLE 7

Teacher Perceptions of Chicago Mastery Learning Reading Program
Broken Down by Years of Implementation [1]

Component Area / Questionnaire Items	Agree			Undecided			Disagree		
	3rd	2nd	1st	3rd	2nd	1st	3rd	2nd	1st
General Satisfaction									
I like the CMLR Program.	81%	83%	69%	14%	9%	17%	4%	9%	14%
My students like the CMLR Program.	81%	81%	74%	9%	6%	12%	10%	13%	14%
One problem with the CMLR Program is that it takes time away from other subject areas. [2]	23%	13%	41%	6%	19%	12%	71%	68%	48%
The CMLR Program should be continued at this school.	78%	79%	70%	16%	13%	19%	6%	9%	11%
Effect on Reading Achievement									
The CMLR Program has helped me improve my students' reading achievement.	80%	83%	58%	15%	11%	33%	5%	6%	9%
The CMLR Program helps to motivate my students in reading.	61%	70%	55%	25%	17%	29%	14%	13%	17%
The CMLR Program has helped me provide for my students' individual reading needs.	58%	68%	48%	25%	21%	27%	17%	11%	26%

(Continued on page 34)

TABLE 7 (Continued)

Component Area / Questionnaire Items	Agree			Undecided			Disagree		
	3rd	2nd	1st	3rd	2nd	1st	3rd	2nd	1st
Effectiveness of Instructional Design									
CMLR Program's whole group instruction is an effective way to teach reading.	81%	80%	70%	10%	11%	20%	9%	9%	10%
CMLR Program's walking reading is an effective way to provide for special reading needs.	84%	83%	73%	9%	17%	20%	6%	0%	7%
CMLR Program's additional activities provide effective skill practice for nonmastery students.	71%	79%	69%	11%	13%	15%	18%	9%	16%
CMLR Program's enrichment activities provide effective enrichment for mastery students.	66%	81%	70%	15%	9%	17%	19%	11%	13%
Quality and Quantity of Published Materials									
The CMLR Program has well designed teacher's manuals that are easy to use.	79%	85%	72%	10%	6%	12%	12%	9%	17%
The CMLR Program has well designed individual student activities that students find interesting.	74%	77%	70%	15%	17%	19%	11%	6%	12%
I have enough CMLR Program materials for my class.	81%	94%	88%	7%	2%	2%	13%	4%	10%

(Continued on page 35)

TABLE 7 (Continued)

Component Area / Questionnaire Items	Agree 3rd	Agree 2nd	Agree 1st	Undecided 3rd	Undecided 2nd	Undecided 1st	Disagree 3rd	Disagree 2nd	Disagree 1st
Quality of Inservice Training									
The quality of the inservice training provided by the Learning Exchange for the CMLR Program has been good.	57%	48%	34%	34%	37%	37%	9%	15%	30%
The quality of the inservice activities provided by the Instructional Assistant for the CMLR Program has been good.	54%	40%	54%	25%	44%	29%	21%	16%	17%
I have had adequate inservice training for implementing the CMLR Program.	77%	75%	50%	12%	9%	21%	12%	17%	30%
I could use more inservice training on special aspects of the CMLR Program.	43%	41%	45%	21%	26%	24%	36%	33%	31%

[1] The number of teachers responding to this questionnaire included 113 teachers at schools in their third year of implementation, 47 teachers at schools in their second year of implementation, and 196 teachers at schools in their first year of implementation.

[2] Disagreement with this statement was considered a positive response for the component area.

APPENDIX C

CMLR SCHOOLS AND NON-CMLR SCHOOLS WITH LIST OF PROGRAMS
THAT MIGHT AFFECT READING ACHIEVEMENT AT EACH SCHOOL

CHICAGO MASTERY SCHOOLS
with
List of Special Programs Which Might Have
Affected Reading Achievement

School	Year of Implementation	Special Programs					
		Ch. I	PAR/MAR	CMI*	CAI*	Effective Schools	G/T Classrooms
Border Star	3						Gr. 4-6
Ladd	3	X	Gr. 4		X		
Meservey	3	X	Gr. 4				
Mt. Washington	3						
Richardson	3	X	Gr. 4				
Scarritt	3	X	Gr. 4				Gr. 4
Switzer	3	X	Gr. 4				Gr. 4
Attucks	2	X					
Cook	2						Gr. 4
Longfellow	2	X			X		
Pershing	2	X	Gr. 4			X	
Whittier	2	X					
Faxon	1	X	Gr. 4			X	
Garfield	1	X	Gr. 4	X			
Holmes	1	X				X	
Korte	1						Gr. 4-6
Kumpf	1	X	Gr. 4				
Longan	1	X					
McCoy	1	X					
Melcher	1						
Moore	1	X					
Pitcher	1			X			
Thacher	1	X	Gr. 4				
Three Trails	1						Gr. 6
Troost	1	X	Gr. 4			X	
Willard	1	X	Gr. 6				
Woodland	1	X	Gr. 6			X	

* Schools which have implemented CMI or CAI for at least one year. CMI was used in MAR/PAR classrooms this year but was not fully implemented until mid-February. CAI math lessons were implemented in mid-February at Troost School.

NON-CHICAGO MASTERY SCHOOLS
with
List of Special Programs Which Might Have
Affected Reading Achievement

	Special Programs					
School	Ch. I	PAR/MAR	CMI*	CAI*	Effective Schools	G/T Classrooms
Askew	X	Gr. 4				
Bancroft	X	Gr. 4			X	
Blenheim	X	Gr. 4				
Bryant			X	X		Gr. 4-6
Chick	X					
Fairmount						
Franklin	X	Gr. 4	X			
Graceland	X	Gr. 4				
Greenwood	X	Gr. 4&6				Gr. 4-6
James	X	Gr. 4				
Knotts	X	Gr. 4				
Manchester	X					
Marlborough						Gr. 5-6
Phillips	X					
Pinkerton	X	Gr. 4				
Rock Creek N.						
Rock Creek W.						
Sugar Creek						
Swinney						
Volker						Gr. 5-6
Weeks	X	Gr. 4	X			
Wheatley	X					

* Schools which have implemented CMI or CAI for at least one year. CMI was used in MAR/PAR classrooms this year but was not fully implemented until mid-February.

APPENDIX D

ANALYSIS OF COVARIANCE SUMMARY TABLES

TABLE 8

Analysis of Covariance Summaries for Student ITBS Reading Scores
(Students Attending CMLR Schools versus
Students Attending Comparison Schools)

Grade Source of Variation	df	Mean Square	F Value	Probability
Grade 3				
Treatment	1	0.94	1.50	0.22
Covariate: CAT Verbal	1	1365.91	2185.47	0.00 *
Covariate: Reading Time	1	0.84	1.35	0.25
Error	1839	0.63		
Grade 4				
Treatment	1	0.36	0.37	0.55
Covariate: CAT Verbal	1	1220.54	1244.16	0.00 *
Covariate: Reading Time	1	3.90	3.98	0.05 *
Error	1499	0.98		
Grade 5				
Treatment	1	3.59	3.65	0.06
Covariate: 1983 ITBS Reading[1]	1	1671.86	1700.94	0.00 *
Covariate: Reading Time	1	5.08	5.16	0.02 *
Error	1245	0.98		
Grade 6				
Treatment	1	0.47	0.41	0.52
Covariate: CAT Verbal	1	2703.06	2381.98	0.00 *
Covariate: Reading Time	1	3.79	3.34	0.07
Error	1577	1.13		

1 Cognitive Ability Test scores were not available for grade five, so last year's ITBS reading scores were used to statistically adjust their scores. To check on the reliability of this alternate covariant for grade five, grades three, four and six were analyzed using last year's ITBS reading scores as well as the analysis using CAT verbal scores.

* Significant at the .05 level.

TABLE 9

Analysis of Covariance Summaries for
Student ITBS Reading Gain Scores
(Students Attending CMLR Schools versus
Students Attending Comparison Schools)

Grade Source of Variation	df	Mean Square	F Value	Probability
Grade 4				
Treatment	1	0.22	0.23	0.63
Covariate: CAT Verbal	1	11.16	12.02	0.00 *
Covariate: Reading Time	1	0.33	0.36	0.55
Error	1470	0.93		
Grade 5				
Treatment	1	3.61	3.67	0.06
Covariate: 1983 Reading[1]	1	78.88	80.26	0.00 *
Covariate: Reading Time	1	5.08	5.17	0.02 *
Error	1245	0.98		
Grade 6				
Treatment	1	2.35	2.34	.13
Covariate: CAT Verbal	1	40.38	40.35	0.00 *
Covariate: Reading Time	1	1.08	1.08	0.30
Error	1444	1.00		

1 Cognitive Ability Test scores were not available for grade five, so last year's ITBS reading scores were used to statistically adjust their scores. To check on the reliability of this alternate covariant for grade five, grades four and six were analyzed using last year's ITBS reading scores as well as the analyses using CAT verbal scores.

* Significant at the .05 level.